

CLAIMS

We Claim:

1. A method of preparing a dental implant made from a material comprising the steps of providing a dental implant blank having a proximal and a distal end and a surface;
treating a desired portion of the surface of the dental implant blank by roughening and/or coating the portion of the dental implant blank;
removing material from at least a portion of the dental implant blank subsequent to the treating step to form a dental implant.
2. A dental implant comprising at least one treated portion selected from the group consisting of roughened portions and coated portions, the implant having at least one cutting flute therein, the cutting flute including a roughened cutting edge, a cutting surface and a collector surface adjacent to the cutting face, wherein at least a portion of one of the cutting surface and the collector surface is smooth and wherein the roughed portions are roughened with resorbable blast material.
3. The dental implant of claim 2, wherein said roughened portions have an average surface roughness of approximately 6 to 9 microns as measured from the peak to the valley of the surface roughening.
4. The dental implant of claim 2, wherein said resorbable blast material is calcium phosphate.

5. The dental implant of claim 2, wherein said implant is self-tapping.
6. The dental implant of any of claims 2 through 5, wherein said dental implant further comprises a hydroxyapatite coating.
7. A dental implant comprising at least one treated portion selected from the group consisting of roughened portions and coated portions, the implant having at least one cutting flute therein, the cutting flute including a roughened cutting edge, a cutting surface and a collector surface adjacent to the cutting face, wherein at least a portion of one of the cutting surface and the collector surface is smooth and wherein the roughened portions are roughened with a titanium plasma.
8. The dental implant of claim 7, wherein said roughened portions have an average surface roughness of approximately 10 to 20 microns as measured from the peak to the valley of the surface roughening.
9. The dental implant of claim 7, wherein said implant is self-tapping.
10. The dental implant of any of claims 7 through 9, wherein said dental implant further comprises a hydroxyapatite coating.
11. A dental implant comprising at least one treated portion selected from the group consisting of roughened portions and coated portions, the implant having at least one cutting

flute therein, the cutting flute including a roughened cutting edge, the cutting flute including a cutting surface and a collector surface adjacent to the cutting face, wherein the cutting surface and the collector surface are smoother relative to the treated portion and wherein the roughed portions are roughened with a resorbable blast material.

12. The dental implant of claim 11, wherein said roughened portions have an average surface roughness of approximately 6 to 9 microns as measured from the peak to the valley of the surface roughening.

13. The dental implant of claim 11, wherein said resorbable blast material is calcium phosphate.

14. The dental implant of claim 11, wherein said implant is self-tapping.

15. The dental implant of any of claims 11 through 14, wherein said dental implant further comprises a hydroxyapatite coating.

16. A dental implant comprising at least one treated portion selected from the group consisting of roughened portions and coated portions, the implant having at least one cutting flute therein, the cutting flute including a roughened cutting edge, the cutting flute including a cutting surface and a collector surface adjacent to the cutting face, wherein the cutting surface and the collector surface are smoother relative to the treated portion and wherein the roughed portions are roughened with a titanium plasma.

17. The dental implant of claim 16, wherein said roughened portions have an average surface roughness of approximately 10 to 20 microns as measured from the peak to the valley of the surface roughening.

18. The dental implant of claim 16, wherein said implant is self-tapping.

19. The dental implant of any of claims 16 through 18, wherein said dental implant further comprises a hydroxyapatite coating.